

# Math News at Bates

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2010–2011



## Math Council

In the fall, Math Council hosted a showing of the film *Breaking the Code*, along with yummy treats!

On March 14, we held a Pi Day event, and of course we had to eat... well, you know. We also had a chance to talk about Senior Seminar and Senior Thesis; faculty and several seniors stood ready to share their experiences with students considering which option would be best for them.

Let's be sure to mention... PIE.





# Math Camp 2011: Field trip to Range Ponds





# Visiting Speakers

- September 24 Shandelle Henson and Jim Hayward, Andrews University  
Mathematical Ecology: An Interdisciplinary Dialogue
- November 10 Margo Levine, Harvard Medical School and Massachusetts General Hospital  
A Consistence Condition for CT Data
- December 3 Michael King, Bowdoin College, CBB Seminar speaker, at Bates  
Cluster Algebras in Combinatorics, Algebraic Geometry, and Representation Theory
- March 25 Paul Nahin, Sampson Lecturer, University of New Hampshire  
Afternoon: Two Problems in Mathematical Expectation  
Evening: How Computers Can Help Answer Mathematical Questions
- May 5 Fernando Gouvea, Colby College, CBB Seminar speaker, at Bowdoin  
Galois Representations and the Problem of Modularity
- May 9 Ken Ono, Emory University  
Adding and Counting



*Bonnie Shulman with Shandelle Henson  
and Jim Hayward*



*Adriana Salerno with Paul Nahin*

## Department Seminars

- October 7 Meredith Greer  
Toward Understanding the Role of *Gloeotrichia echinulata* in Eutrophication of  
Lakes: Early Modeling Results
- October 13 Adriana Salerno  
The Dwork Family and Hypergeometric Functions
- November 3 Peter Wong  
Automorphisms of Crystallographic Groups
- November 17 Jonathan Webster  
Cubic Function Fields in Characteristic Three

Real Analysis enjoys a rare chance to have class outside in NOVEMBER



## Blogging for the American Mathematical Society (AMS)

Professor Adriana Salerno began her blog, PhD Plus Epsilon, for the AMS. For a peek, go to <http://blogs.ams.org/phdplus/>.

*Sierpinski cookies by Grace Coulombe*

## CBB Mellon Collaborative

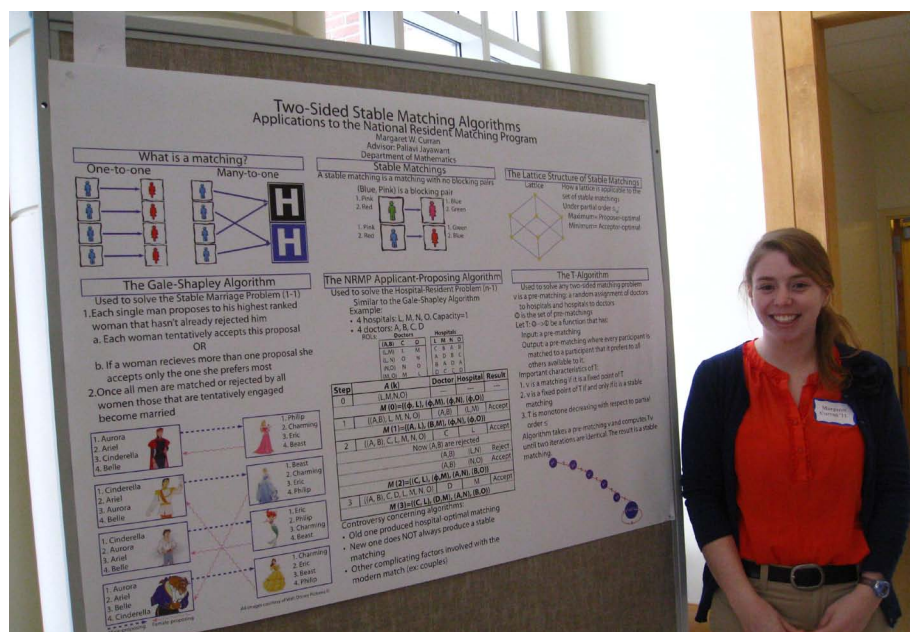
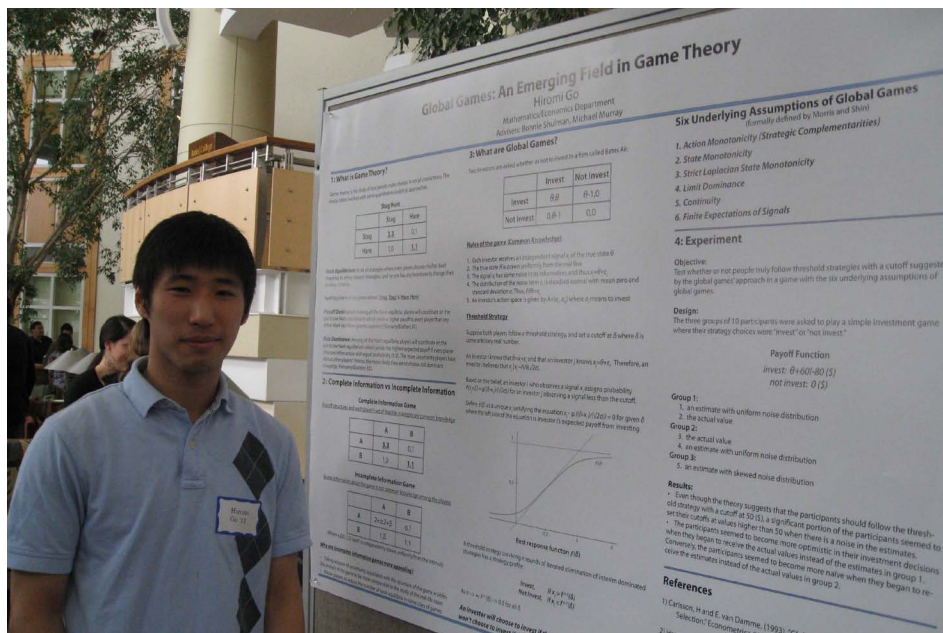
Peter Wong of Bates joined with mathematicians from Bowdoin and Colby to organize a series of talks on Algebra, Topology, and Number Theory. They received funding from the CBB Mellon Collaborative, meant to foster connections between research programs at Colby, Bates, and Bowdoin. Talks were by both CBB presenters and outside visitors.



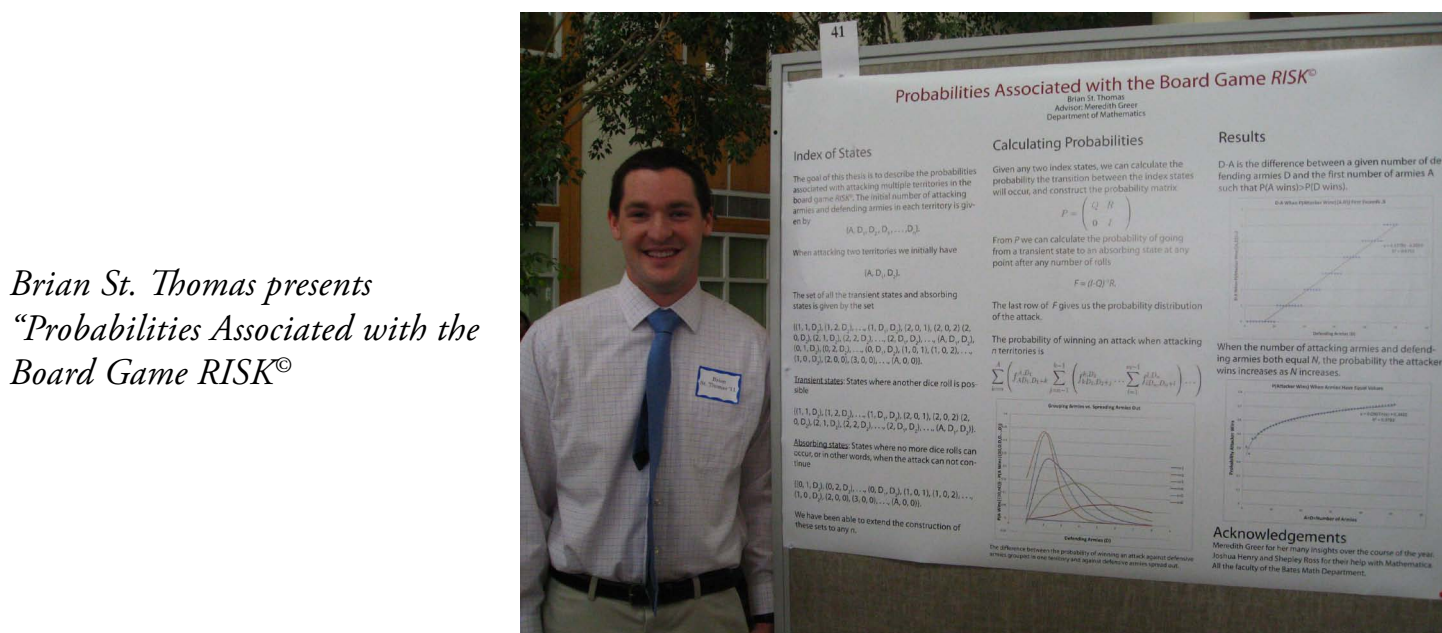


# Senior Thesis at the Mount David Summit

*Hiromi Go presents "Global Games: An Emerging Field in Game Theory"*



*Meg Curran presents "Two-Sided Stable Matching Algorithms"*



*Brian St. Thomas presents "Probabilities Associated with the Board Game RISK"*



# New course this year: Mathematics for a Just World (MATH 112)

One of the projects in this class was to organize an “Unemployment Rate Debate” where different teams took the roles of the Federal Government, a (fictitious) National Association of Men (NAM), the Regional Governors Group (representing different regions of the U.S.) and a (fictitious) Alliance for the Advancement of Women (AAW). They analyzed the \*same\* unemployment data, and made arguments to support their groups’ interests (often conflicting with each other).



## Putnam Exam

Twenty Batesies took the 2010 Putnam exam - a record number for us! Three tied for top score at Bates: congratulations to Tianjiao Yan, Hong Nguyen, and Qasim Mahmood.

## PHOTO FEATURE

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This year’s Senior Seminar: Chaotic Dynamical Systems





# Senior dinner at DaVinci's



Celebrating the completion of their math majors!

